



Publikationer & patent

Obs: Fram till 2004 mitt efternamn var Ban.

Forskningsartiklar i internationella tidskrifter:

Siri Caspersen, Zsofia Ganrot (2018): Closing the loop on human urine: Plant availability of zeolite-recovered nutrients in a peat-based substrate. *Journal of Environmental management*, 211, 177-190.

Ganrot, Zs., Broberg, J., Bydén, S. (2009). Energy efficient nutrient recovery from household wastewater using struvite precipitation and zeolite adsorption techniques. A pilot study in Sweden. Peer-reviewed article in: Achley, K., Mavinic, D., Koch, F. (eds): *International Conference on Nutrient Recovery from Wastewater Streams*. IWA Publishing, 511-521.

Ganrot, Zs., Slivka, A., Dave, G. (2008) Nutrient recovery from human urine using pre-treated zeolite and struvite precipitation in combination with freezing-thawing and plant availability tested on common wheat. *CLEAN*, 36(1), 45-52.

Ganrot, Zs., Dave, G., Nilsson, E., Li, B. (2007). Plant availability of nutrients recovered as solids from human urine tested in climate chamber on *Triticum aestivum* L. *Bioresource Technology* 98, 3122-3129

Ganrot, Zs., Dave, G., Nilsson, E. (2007). Recovery of N and P from human urine by freezing, struvite precipitation and adsorption to zeolite and active carbon. *Bioresource Technology* 98, 3112-3121.

Ganrot, Zsofia (PhD Thesis, May 2005). *Urine processing for efficient nutrient recovery and reuse in agriculture*, ISBN 91 88376 29X, Göteborg University (available as PDF file, see above link).

Ban, Zs., Dave G. (2004). Laboratory studies on recovery of N and P from human urine through struvite crystallization and zeolite adsorption. *Environmental Technology* 25, 111-121.

Adamsson M., Ban, Zs., Dave G. (2003). Sustainable utilization of human urine in urban areas – practical experiences. Peer reviewed paper published in *Conf. Proceedings: 2nd International Symposium on ecological sanitation*, Lübeck, Germany, April 2003, 643-650.

Lind, B-B., Ban, Zs., Bydén, S. (2001). Volume reduction and concentration of nutrients in human urine. *Ecological Engineering* 16, 561-566.

Lind, B-B., Ban, Zs., Bydén, S. (2000). Nutrient recovery from human urine by struvite crystallization with ammonia adsorption on zeolite and wollastonite. *Bioresource Technology* 73, 169-174.

Andra vetenskapliga publikationer:

Siri Caspersen och Zsafia Ganrot (2017): Näringsberikad zeolit som gödselmedel. SLU LTV Fakultetens Faktablad 2017: 25 (<http://again.se/sv/nyheter/lyckat-odlingstest-av-gainutri>)

Min avhandling med titeln "Urine processing for efficient nutrient recovery and reuse in agriculture" finns att läsa [från huvudsidan som pdf](#).

Ban, Zsófia (MSc. Thesis, 1998): Nutrient recovery from human urine – a concentration and crystallization process. Göteborg University/ Dept. of Applied Environmental Science and Dept. of Geology, pp 1-60.

Ban, Zsófia (1995): Vattenförsörjning och avloppshantering i Budapest-området.(Rapport nr 1), Inst. för Tillämpad miljövetenskap, Göteborgs Universitet, ISSN 1400-9323.

Medförfattare i:

Zorpas A. Antonis & Inglezakis J.Vassilis (Eds), (2012): Handbook of Natural Zeolites. Bentham Science Publishing, ISBN 978-1-60805-446-6. E-book form available at: <https://www.amazon.es/Handbook-Natural-Zeolites-Vassilis-Inglezakis-ebook/dp/B00C1DQU76>

I kap. 3 article 3.8: "Use of zeolites for improved nutrient recovery from decentralised domestic wastewater, especially source separated urine. Case study from Sweden."

I kap .4 article 4.9: "Energy-saving, high-efficient nutrient recovery from household wastewater using struvite precipitation and zeolite adsorption techniques. A pilot study in Sweden."

Richert-Stintzing, A (Ed), (2007): Urine diverting toilets in climates with cold winters. Technical considerations and the reuse of nutrients with a focus on legal and hygienic aspects. Women in Europe for a Common Future (WECF). PDF file available at www.wecf.eu.

Hedenus F and Larsson A (Eds), (2006): Towards a "Smart Growth- Strategy for Sustainable Development. EPSD (European Panel on Sustainable Development), Report No 3, pp 46.

Patent:

2019 mars: Patent nr: ZL 201480039192.5 och publiceringsnr: CN 105377768A - [Kina](#).

2021 februari: Patent nr: 359360 publiceringsnr: och publiceringsnr: 201617003371 - [Indien](#).

2022 januari: Patent nr: 3019449 publicerad i European Patent Bulletin 22/03 - [Europa](#).

Patentägare idag är Again AB.